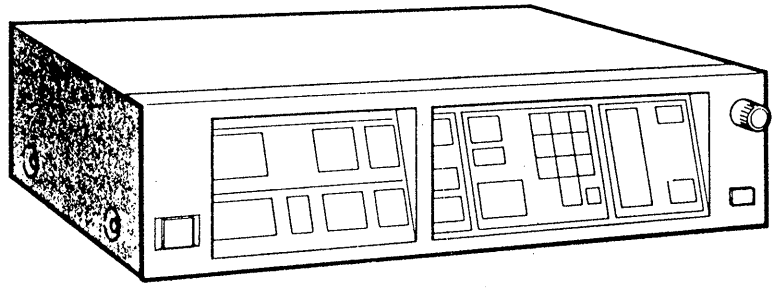
CDK-3000C

SERVICE MANUAL

UK Mobel



SPECIFICATIONS

Programmable capacity	9 programmes maximum
Programmable number	Up to 99th programme on the 999th disc.
Display	Digital display: Music number in play, programme number, programmable capacity. Message display: Play status, programming status, programming guide Others: START indicator, READY indicator, PLAYMODE indicator
Programming check function	6 modes: Programming (Karaoke, BGM), Replay, Check, Cancel, Change, and Await
Speed control	$\pm 6\%$
Pitch transport	$\pm 1/3$ octave

Connection terminals	Disc loader: D-sub 25 pin Coin box: 10 pin round type Remote control receiver: DIN 4 pin Pitch controller: for connecting the RM-7001 External input: phono jacks External output: phono jacks
Power requirement	240 V AC, 50 Hz
Power consumption	21 watts
Dimensions	500 × 95 × 325 mm (w/h/d) ($19\frac{3}{4} \times 3\frac{3}{4} \times 12\frac{7}{8}$ inches) including projecting parts and controls)
Weights	6.2 kg (13 lb 11 oz)
Supplied accessories	RM-7000 remote commander (1) RM-7001 digital pitch controller (1) AA-size batteries (2) Connecting cable (1) Short-circuit plug (1) Ground wire (1)

— Continued on next page —

CD KARAOKE SYSTEM
KARAOKE CONTROLLER

SONY®

RM-7000 Remote commander

Type	Infrared pulse type
Power requirement	3 VDC (2 size-AA (R6) batteries
Dimensions	62 × 175 × 18 mm (w/h/d) ($2^1/_2 \times 7\ ^3/_4$ inches) incl. projecting parts and controls
Weight	130 g including batteries (4.6 oz)

Digital pitch controller RM-70001

Type	Wired remote control (6m)
Pitch transport	$+^1/_3$ octave
Dimensions	45 × 126 × 18 mm (w/h/d) ($1^7/_8 \times 5 \times\ ^3/_4$ inches) incl. projecting parts and controls
Weight	280 g (10 oz)

Design and specifications subject to change without notice.

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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

Identifying the Parts

Front panel

START button and indicator
Press the button to start play when the SEARCH or READY indicator is on. If pressed when the SEARCH indicator is on, play starts after the disc becomes ready. If pressed when the READY indicator is on, play starts immediately.
When CD BGM PLAY has been set, the START indicator lights, and play starts after standby ends, independently of the START button operation.

READY/PLAY indicator and DISC/TRACK No. display

PLAY: Lights during CD play. The DISC/TRACK No. display shows the number in play at this time.
READY: Lights when a music search has completed. The DISC/TRACK No. display shows the number in play at this time.
SEARCH: Lights when a music search is under way. The DISC/TRACK No. display shows the number being searched for at this time.

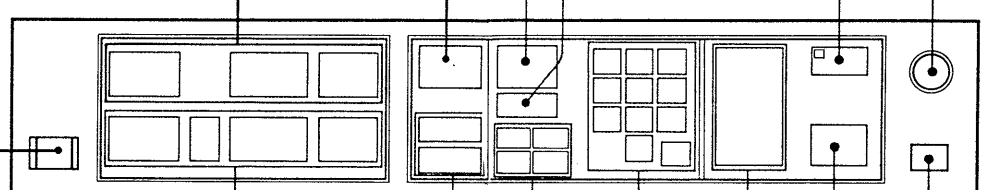
POWER (ON/OFF) switch

PROGRAM Indicator and next programme display
NEXT: When this indicator lights, the next programme display shows the number of the programme to be played next.
PROGRAM: Lights during programming. The next programme display shows the programme number entered at this time.
CHECK: Lights when the CHECK button or CANCEL button is pressed or when programming is completed. The next programme display shows the programme numbers which have been programmed at this time.

PLAY CONTROL button ⑧
REPLAY: Press to replay a song from the beginning.
STOP: Press to reprogramme or to stop playback.

PROGRAM CONTROL buttons ⑧
AWAIT: Press to change the programme order (effective only for Karaoke programmes).
CHECK: Press to check the programme numbers which have been set.
CANCEL: Press to cancel a programme.
CHANGE: Press to change the programme number (effective only for Karaoke programmes).

Numeric buttons and ENT (enter) button
Numeric buttons are used to enter a disc or programme number.
The SET button must be pressed after the numeric buttons have been pressed.



PROGRAM button
Press to enter a Karaoke Programme.

BGM button
Press to enter a BGM programme.

Remote control sensor ⑩
Receives the signal from the supplied remote commander.

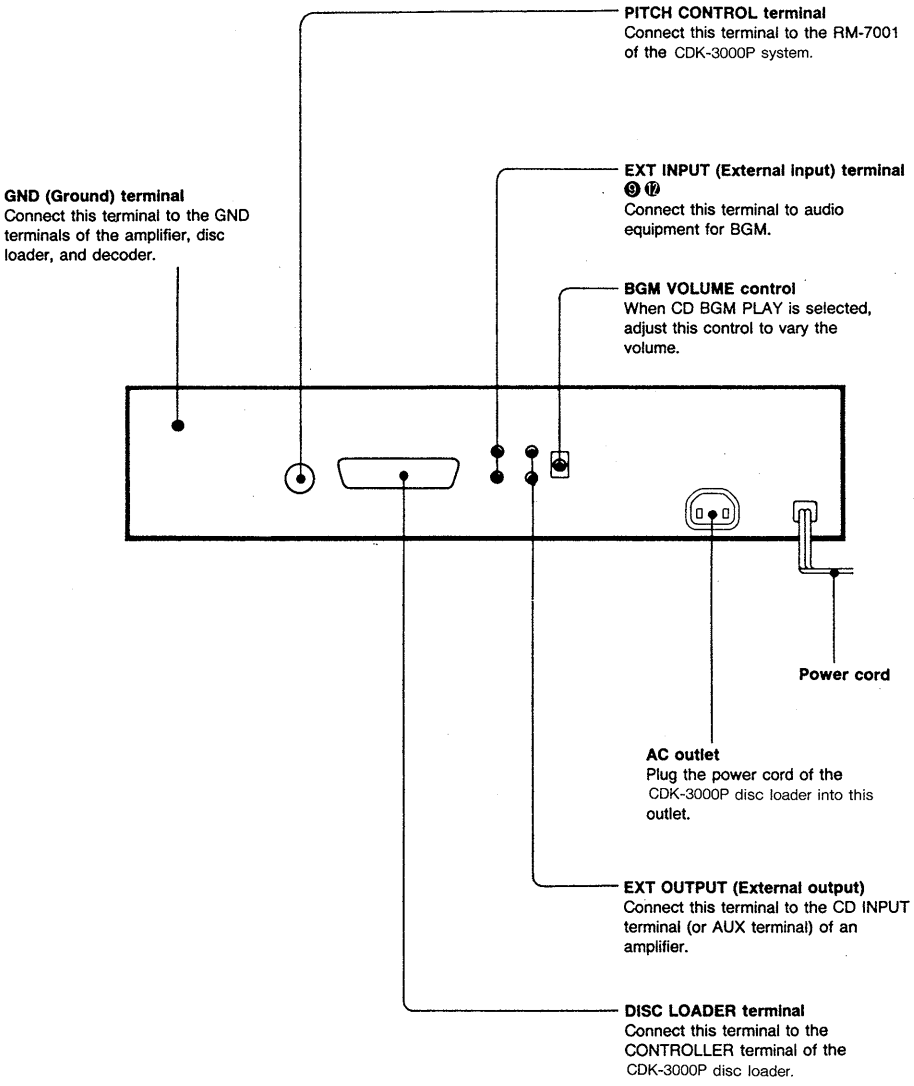
SPEED control
Turn this control to vary the playing speed and pitch of the Karaoke music. When the RM-7001 digital pitch controller is connected, the pitch cannot be varied, but the tempo can be controlled.
+ direction: Playing speed increases.
– direction: Playing speed decreases.

PLAY MODE selector and indicator
⏍ SINGLE: When a single programme ends, the unit enters the standby mode before the next programme is played. To restart play press the START button.
⏍ MULTI: Programmed programmes are played automatically and sequentially.
When SINGLE (⏍) is selected, the indicator lights.

CREDIT indicator
This indicates the number of programmes that can be programmed (up to 99) for the number of coins deposited. When the number exceeds 99, a dot (.) is displayed between the numerals. When the coin box is not connected, the CREDIT indicator does not light up.

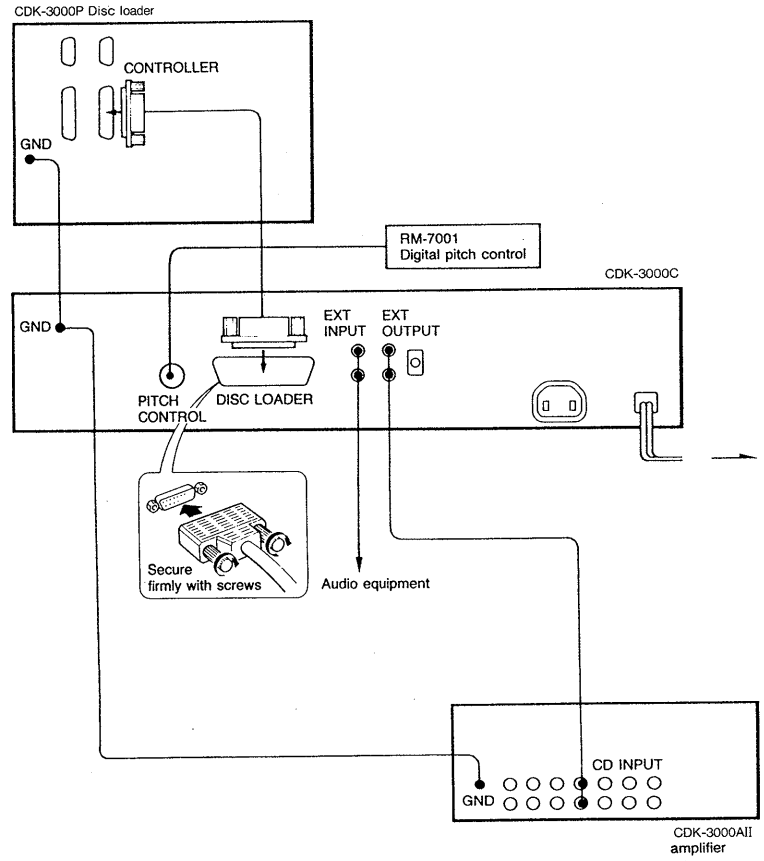
Programming guide
The programming procedure is displayed as messages.

Rear panel


PITCH CONTROL terminal
Connect this terminal to the RM-7001 of the CDK-3000P system.
EXT INPUT (External input) terminal ⑨⑰
Connect this terminal to audio equipment for BGM.
BGM VOLUME control
When CD BGM PLAY is selected, adjust this control to vary the volume.
GND (Ground) terminal
Connect this terminal to the GND terminals of the amplifier, disc loader, and decoder.
Power cord
AC outlet
Plug the power cord of the CDK-3000P disc loader into this outlet.
EXT OUTPUT (External output)
Connect this terminal to the CD INPUT terminal (or AUX terminal) of an amplifier.
DISC LOADER terminal
Connect this terminal to the CONTROLLER terminal of the CDK-3000P disc loader.

Connections

- Turn off the POWER (ON/OFF) switch on all units before making connections.
- Make sure all plug connections are firm. Incomplete connections may lead to malfunctions.



Karaoke Play

You can enjoy Karaoke play by reserving your desired music numbers from discs.

How to Reserve

Example: To reserve music number 11 on disc number 24.

Disc number This number indicates the disc address in the disc loader.
Music number This number indicates the music address on the disc.

Programming guide	Button operation	Next programme display	READY/PLAY indicator/ PROGRAM indicator
	POWER		
Programming is possible.	PROGRAM	Programme number Lights up Flashes	–PROGRAM– Lights up
Enter the disc number.	2 4 ENT	Lights up Flashes	
Enter the music number.	Programming is automatically cancelled if the number is not entered within 30 seconds. 1 1 ENT	Lights up	– SEARCH – Lights up Programming is completed. Up to nine programmes can be programmed.
			The disc has been set and the programme search has been completed. – READY – Lights up

Repeat the above procedures to reservemultiple music numbers.

How to Play

Press the START button.

START

Display
– PLAY –
Lights up

When the PLAY MODE selector is set to MULTI (▫), play starts regardless of the START button operation.

Note

Be sure to check the disc number and music number before programming. When a non-existent number is entered, the next programme display starts flashing after searching has been completed. When this occurs, reprogramme the correct number.

To go back to the beginning of the song

REPLAY

Play starts from the beginning.
REPLAY is effective only within the first minute of play.

If you hear a wrong programme

Enter the correct programme number after pressing the STOP button.

STOP

2 4 ENT 1 1 ENT

Stop is effective only within the first minute of play.

To cancel play

STOP

When the digital counter displays 00, press the STOP button again after five seconds, the system will proceed to the next programme.

If you turn off the POWER (ON/OFF) switch by mistake during play

Even if you turn on the POWER (ON/OFF) switch again, the programme which was in play ends and the disc is returned. All other programmes which have been entered are also cancelled.

If you have entered the wrong number

CANCEL

Delete the numbers appearing in the next programme display.

If the next singer is not ready

Replace the initial programme with another, according to the number of times the AWAIT button has been pressed.

AWAIT

The initial order	1 – 2 – 3 – 4 – 5 –....
Pressed once	2 – 1 – 3 – 4 – 5 –....
Pressed twice	3 – 1 – 2 – 4 – 5 –....
Pressed three times	4 – 1 – 2 – 3 – 5 –....
Pressed four times	5 – 1 – 2 – 3 – 4 –....

To check the programmes reserved

CHECK

Each time CHECK is pressed, the programme number appears in reserved order.
Use this button to find and display the programme you want to change or cancel.

To change a programme

Use the CHECK button to display the programme number you want to change, then press the CHANGE button and enter the new programme number.

CHANGE

2 4 ENT 1 1 ENT

To cancel a programme

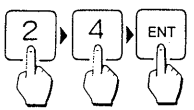
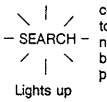
CANCEL

Use the CHECK button to display the programme number you want to cancel, then press the CANCEL button. The following programmes are all renumbered.

BGM Play

This Karaoke system can play CDs as BGM. Select the desired disc number for BGM play.
The volume control for BGM is provided on the rear panel. Use the control to vary the BGM volume.

Operation

Programming guide	Button operation	Next programme display	READY/PLAY indicator/ PROGRAM indicator
		Program number Lights up	Lights up
Enter the disc number.	Within 30 seconds 		 Lights up Programming is completed. Up to nine disc numbers can be programmed.
	Play starts immediately.		The disc has been set and the programme search has been completed... Lights up

• During CD BGM play, the unit plays all the programmes on the disc from the first to the last and then stops.

To change CD BGM play to Karaoke play

CD BGM play automatically stops and Karaoke play begins when Karaoke programming has been completed. If further Karaoke programming is performed, playing the remaining BGM discs which have been programmed is postponed until all Karaoke programmes have been played.

Note
The STOP, CHECK and CANCEL buttons function in the same manner as those in Karaoke play.
In BGM programming, the REPLAY, AWAIT, and CHANGE buttons do not function.

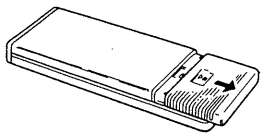
To use audio equipment for BGM play

If you connect a piece of audio equipment, such as a tape deck, to the EXT INPUT terminal, it can be used for BGM play. CD Karaoke or CD BGM programming is automatically played first. After which, BGM from the other audio equipment automatically begins.

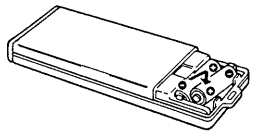
Remote Control

Installing batteries

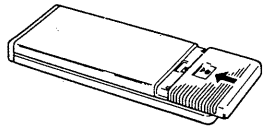
1 Slide off the lid.



2 Insert two size AA (R6) batteries according to the + and – terminal indications.



3 Replace the lid and slide it until it locks.

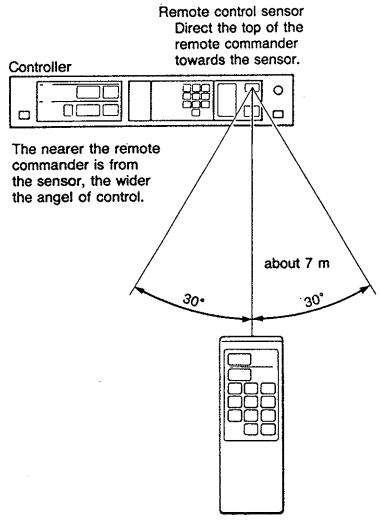


When to replace batteries
About half a year of normal operation can be expected when using Sony SUM-3(NS) batteries. When the batteries becomes weak, the remote commander will not operate the unit. Replace both batteries with new ones. If the batteries are completely exhausted, the transmission lamp will not light when any button is operated.

To avoid battery leakage
When the commander is not to be used for a long period of time, remove the batteries to avoid damage caused by battery leakage and corrosion.

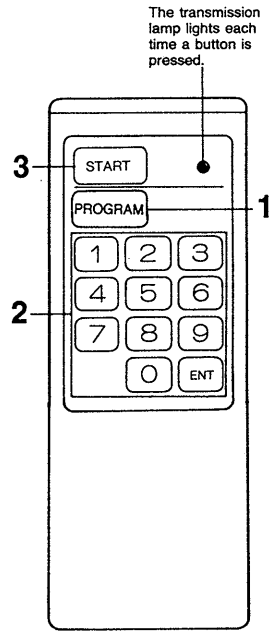
To avoid malfunction of the remote commander
Keep the remote commander away from extremely hot or humid places.

Operational Range


Remote control sensor
Direct the top of the remote commander towards the sensor.
Controller
The nearer the remote commander is from the sensor, the wider the angel of control.
about 7 m
30°
30°

Note
When an obstacle is placed between the remote commander and the sensor, the remote commander loses its ability to control the unit.

Operation



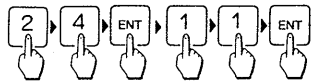
The button on the remote commander are operated the same way as the buttons on the front panel of the unit.

1 Press the PROGRAM button.

PROGRAM indication lights in the unit display window.

2 Enter the disc number and music number using the numeric buttons, then press the ENT.

Example: To enter programme 24-11.



To change the programme entered by this procedure, press the PROGRAM button and re-enter the correct programme.
When programming with the front panel buttons on the main unit, all remote commander commands other than START button are ignored.

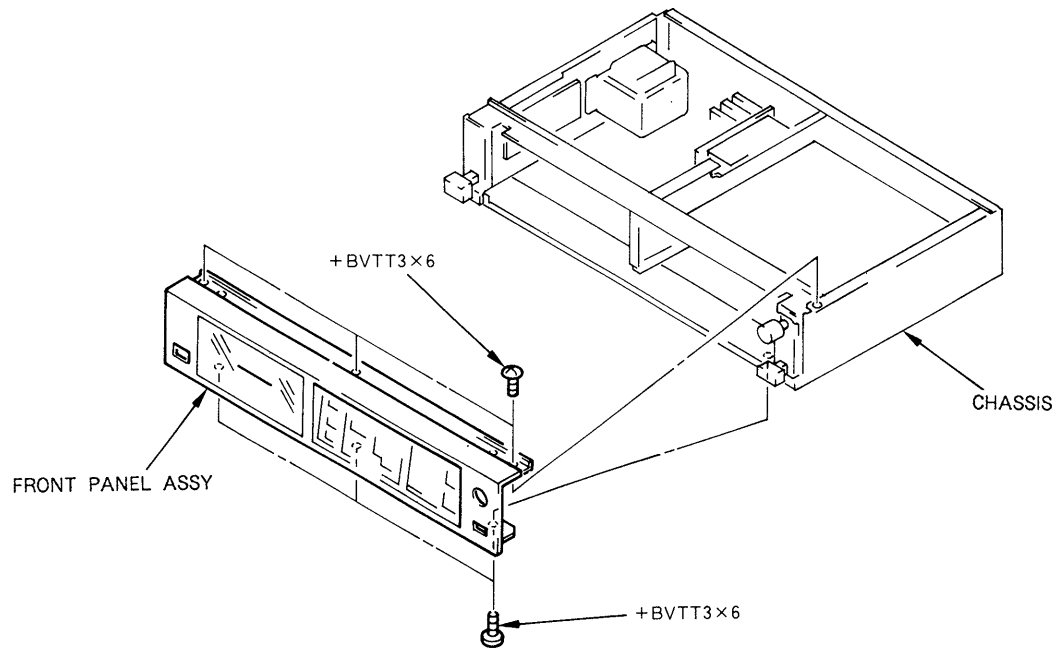
3 Press the START button.

The disc has been set and the READY lamp lights.

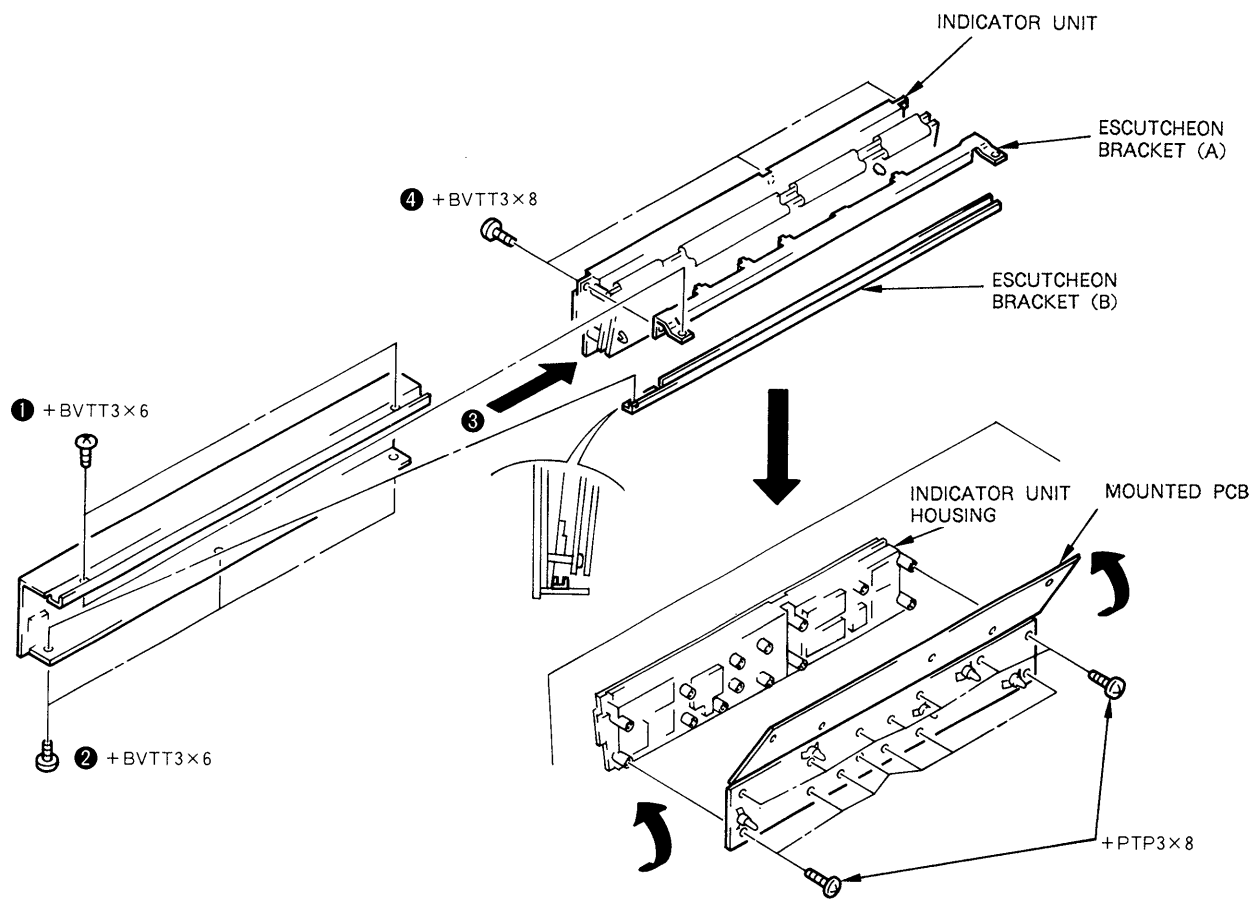
SECTION 2
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

FRONT PANEL ASSY

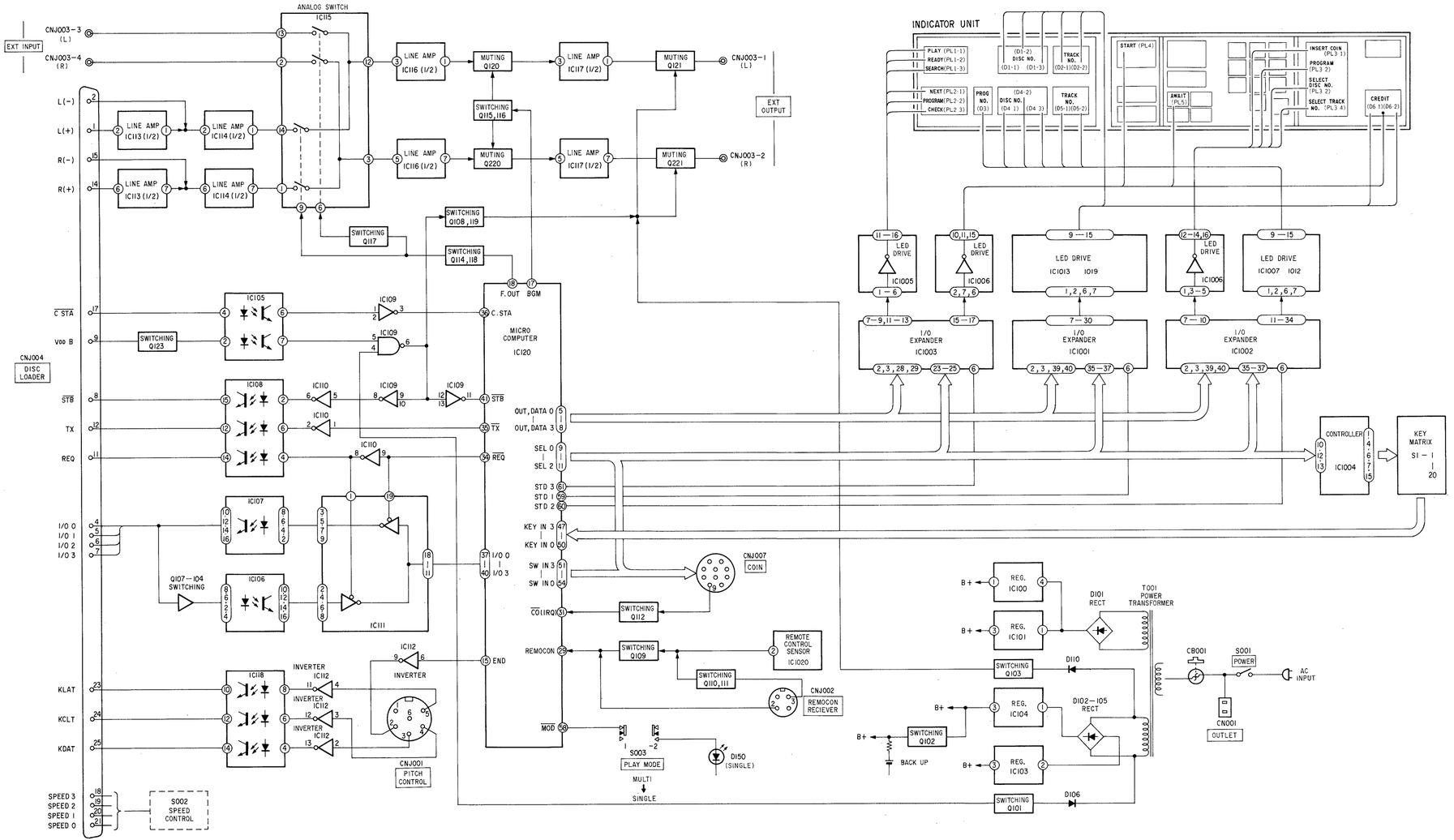


INDICATOR UNIT



SECTION 3
DIAGRAMS

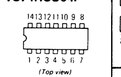
3-1. BLOCK DIAGRAM



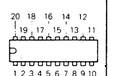
3-2. MAIN SECTION PRINTED WIRING BOARDS

● Semiconductor Lead Layouts

CX770
M54516P
TC74HC00P
TC74HCU04P



TC74HC240P

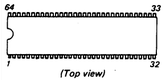


PS2401-4

M50782SP

M50783SP

MB88515B-140M



PS2401-2
RC4560DD

RC78L12A

M5F78M05

RC79L12A

STR9005

DTA124ES
DTC124ES

2SC2785

2SA733
2SC2878

10E2
HZS9C2L
RD5.6EL2

1SS202-1

D5FB20F

MC911

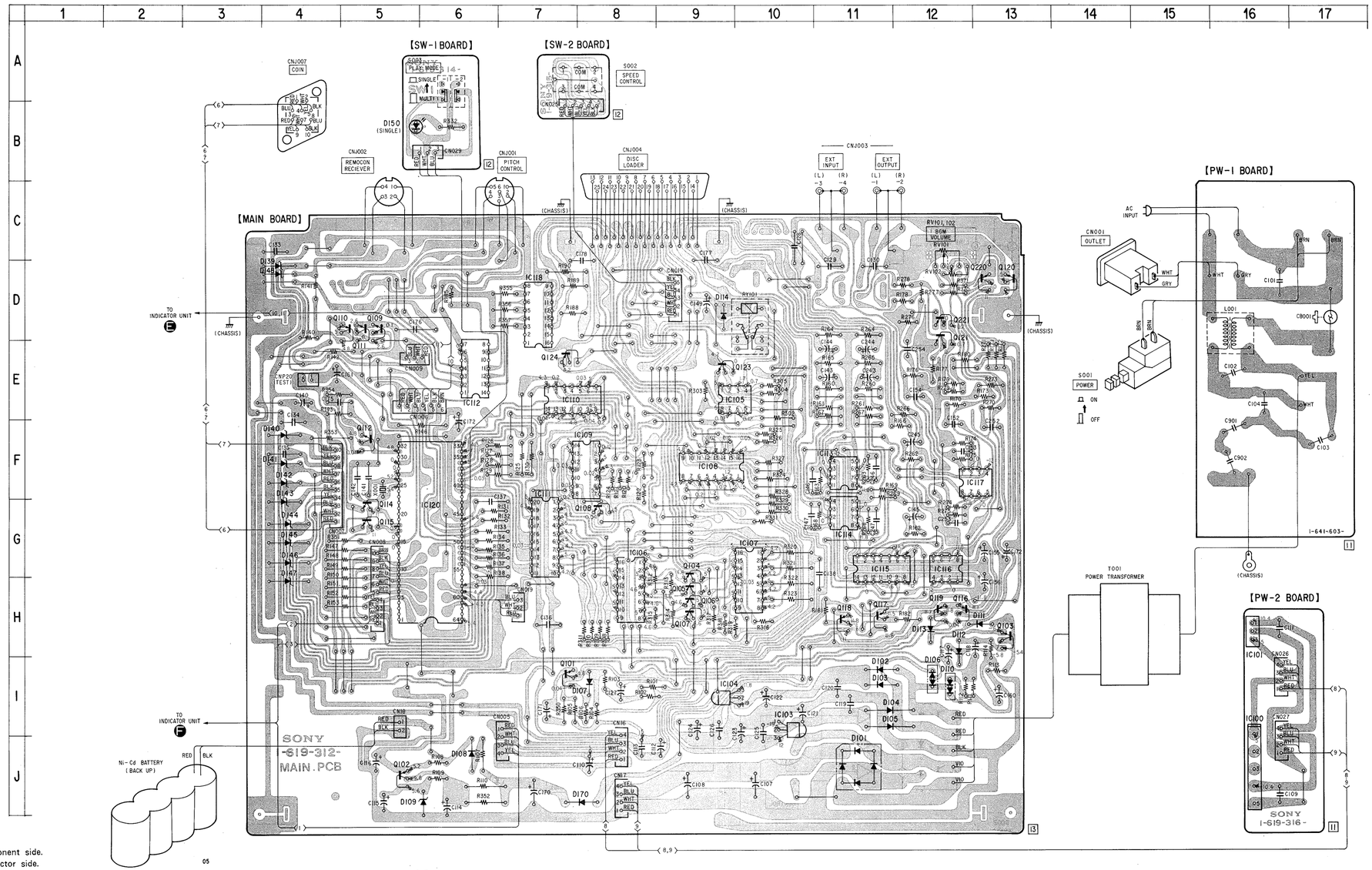
MC931

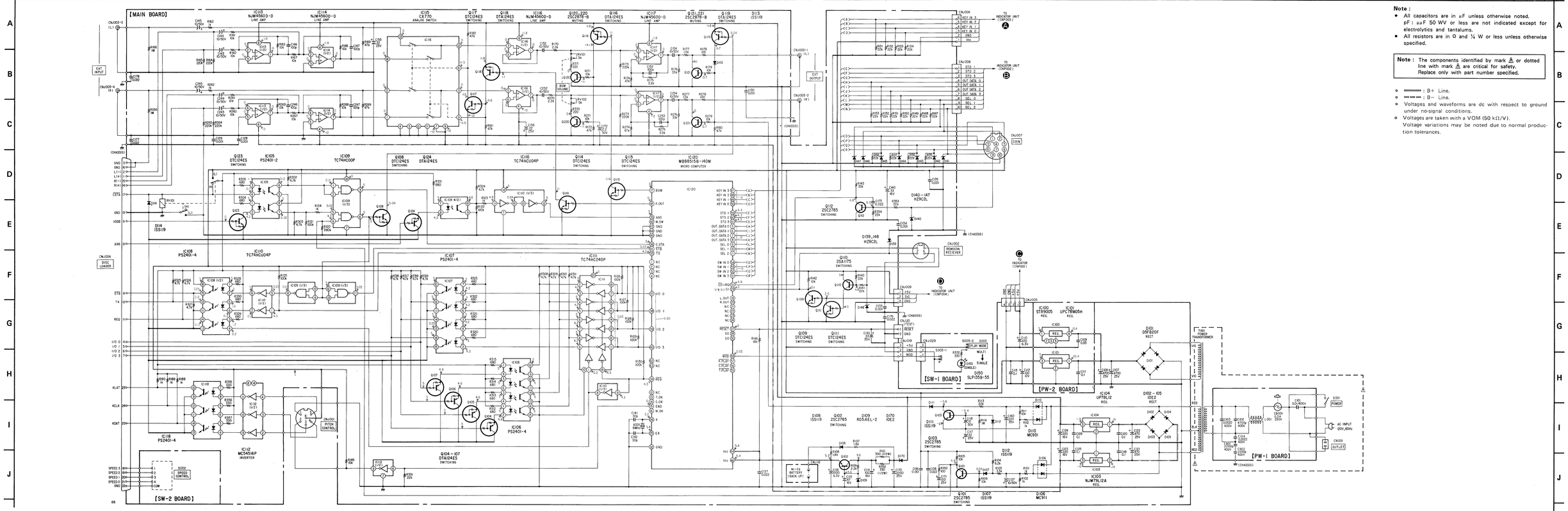
TLR124

● Main Section Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D101	J-11	IC100	J-16
D102	H-11	IC101	H-16
D103	I-11	IC103	I-10
D104	I-11	IC104	I-10
D105	I-11	IC105	E-9
D106	I-12	IC106	G-8
D107	I-8	IC107	G-10
D108	J-6	IC108	F-9
D109	J-6	IC109	F-8
D110	I-12	IC110	E-7
D111	H-13	IC111	G-7
D112	H-12	IC112	E-6
D113	H-12	IC113	F-11
D114	D-9	IC114	G-11
D118	D-4	IC115	G-11
D119	D-4	IC116	G-12
D120	D-5	IC117	F-13
D121	D-5	IC118	D-7
D122	C-10	IC120	G-6
D123	C-10		
D124	C-10	Q101	I-7
D125	C-10	Q102	J-5
D126	C-10	Q103	H-13
D127	C-10	Q104	G-9
D128	C-10	Q105	H-9
D129	D-10	Q106	H-9
D130	D-11	Q107	H-9
D131	D-11	Q108	F-8
D132	D-11	Q109	D-5
D133	D-11	Q110	D-4
D134	D-11	Q111	D-5
D135	D-11	Q112	F-5
D136	D-11	Q114	F-5
D137	D-11	Q115	G-5
D138	D-11	Q116	H-12
D139	C-4	Q117	H-11
D140	E-4	Q118	H-11
D141	F-4	Q119	H-12
D142	F-4	Q120	D-13
D143	F-4	Q121	D-12
D144	G-4	Q123	E-9
D145	G-4	Q124	E-7
D146	G-4	Q220	D-13
D147	G-4	Q221	D-12
D148	C-4		
D150	B-5		
D170	J-8		

Note :
- ○—— : parts extracted from the component side.
- ●—— : parts extracted from the conductor side.





Note :

- All capacitors are in μF unless otherwise noted. pF : μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.

Note : The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

- ▭▭▭ : B+ Line.
- ▭▭▭ : B− Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (50 kΩ/V). Voltage variations may be noted due to normal production tolerances.

3-4. INDICATOR UNIT PRINTED WIRING BOARD

Note Mounting Diagram :
- ○—— : parts extracted from the component side.
- ●—— : parts extracted from the conductor side.

- **Semiconductor Lead Layouts**

M54519P
SN74LS247N
TC4028BP

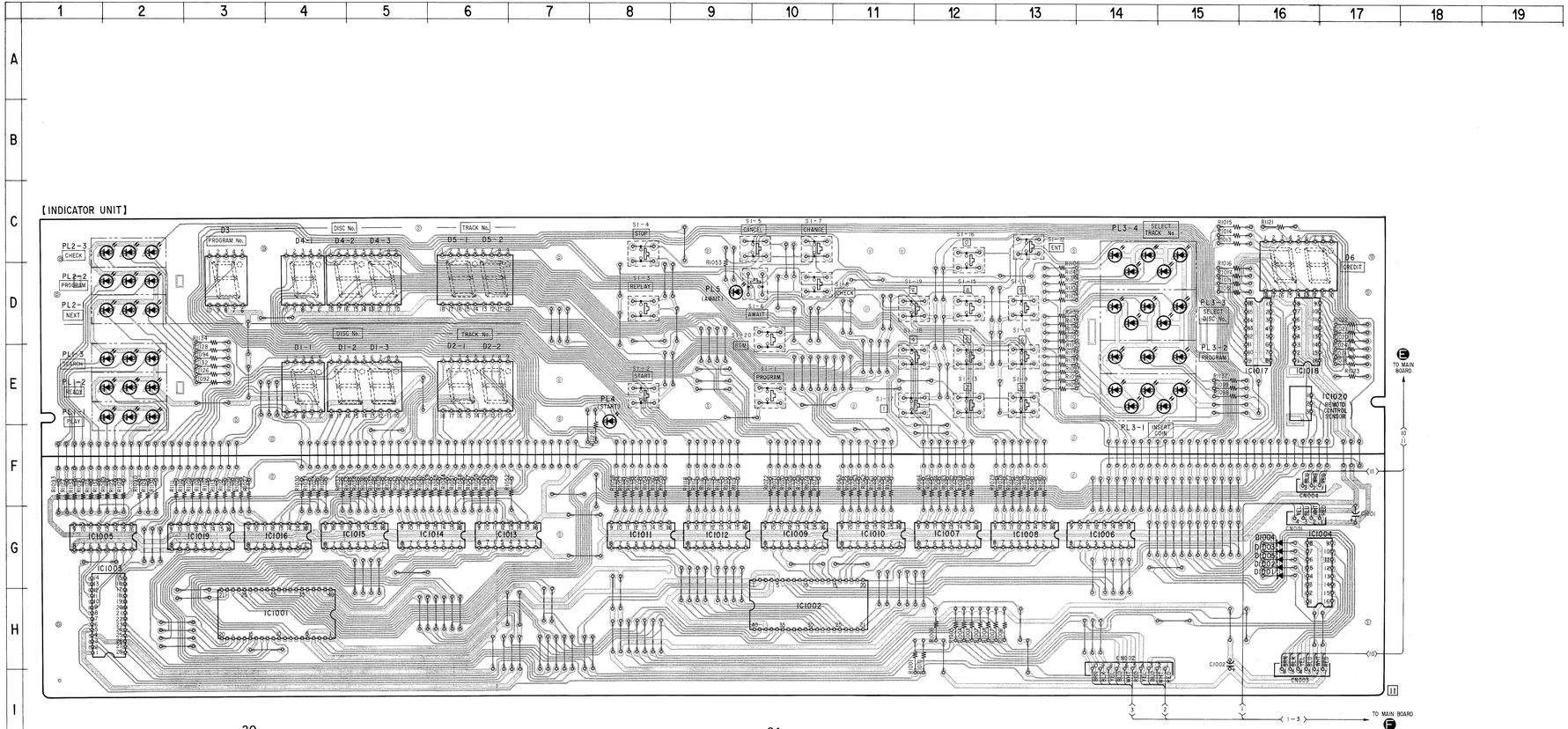
M50782SP

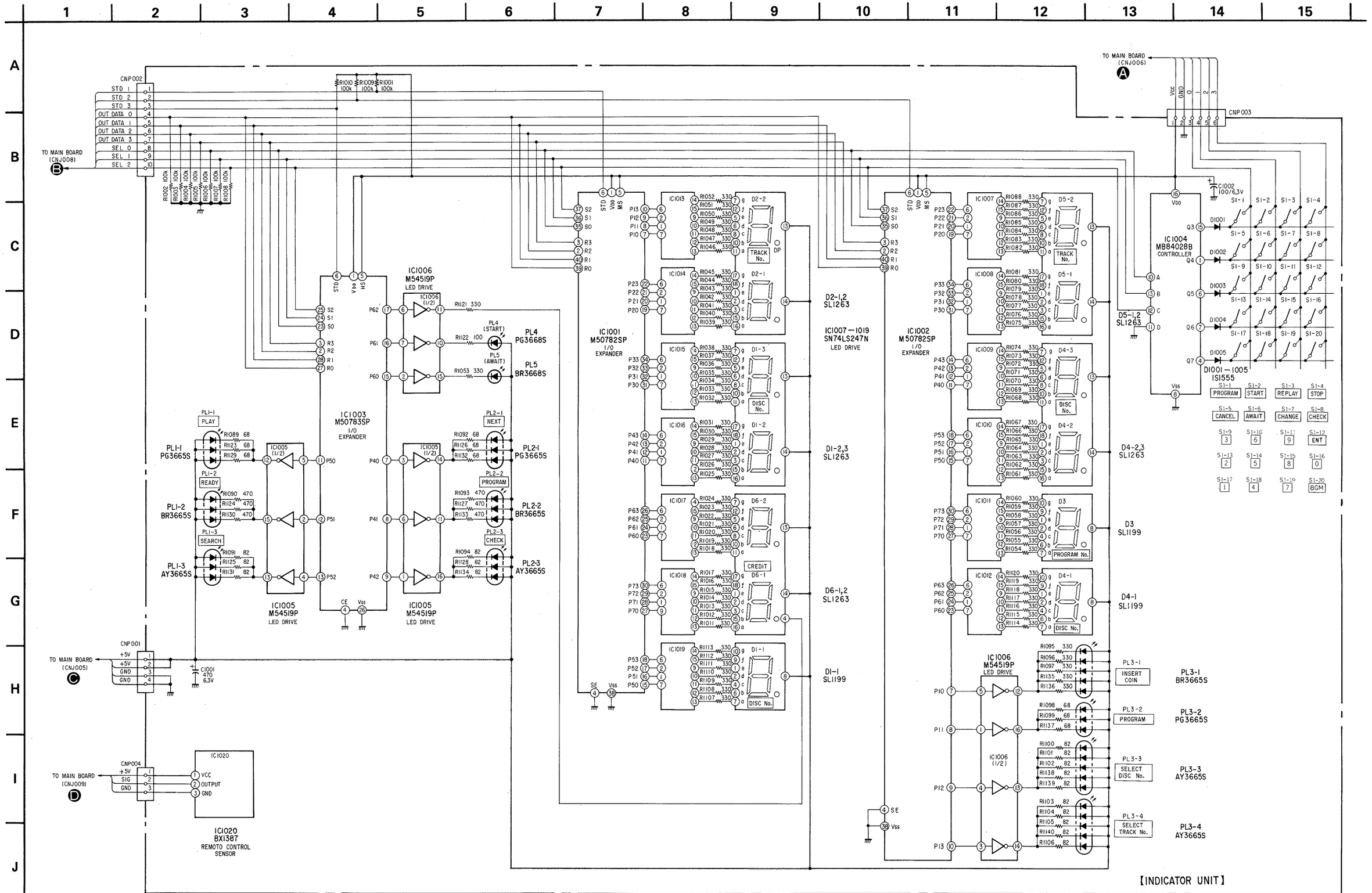
M50783SP

1SS119

- **Indicator Unit Section Semiconductor Location**

Ref. No.	Location
D1	E-4
D2	E-6
D3	D-3
D4	D-4
D5	D-6
D6	D-16
D1001	G-16
D1002	G-16
D1003	G-16
D1004	G-16
D1005	G-16
IC1001	H-3
IC1002	H-10
IC1003	H-2
IC1004	G-17
IC1005	G-1
IC1006	G-14
IC1007	G-12
IC1008	G-13
IC1009	G-10
IC1010	G-11
IC1011	G-8
IC1012	G-9
IC1013	G-6
IC1014	G-5
IC1015	G-5
IC1016	G-4
IC1017	D-16
IC1018	D-16
IC1019	G-3
IC1020	E-16
PL1-1	E-1
PL1-2	E-1
PL1-3	E-1
PL2-1	D-1
PL2-2	D-1
PL2-3	C-1
PL3-1	E-14
PL3-2	E-14
PL3-3	D-14
PL3-4	D-14
PL4	E-8
PL5	D-9




CNP002
STD 1
STD 2
STD 3
OUT DATA 0
OUT DATA 1
OUT DATA 2
OUT DATA 3
SEL 0
SEL 1
SEL 2
TO MAIN BOARD (CNJ008)
R1010 100k
R1009 100k
R1001 100k
R1002 100k
R1003 100k
R1004 100k
R1005 100k
R1006 100k
R1007 100k
R1008 100k
IC1006 M54519P LED DRIVE
IC1003 M50783SP I/O EXPANDER
IC1001 M50782SP I/O EXPANDER
IC1002 M50782SP I/O EXPANDER
IC1004 MB84028B CONTROLLER
IC1005 M54519P LED DRIVE
IC1005 M54519P LED DRIVE
IC1006 M54519P LED DRIVE
IC1006 (1/2)
IC1007—1019 SN74LS247N LED DRIVE
PL1-1 PLAY
PL1-1 PG3665S
PL1-2 READY
PL1-2 BR3665S
PL1-3 SEARCH
PL1-3 AY3665S
PL2-1 NEXT
PL2-1 PG3665S
PL2-2 PROGRAM
PL2-2 BR3665S
PL2-3 CHECK
PL2-3 AY3665S
PL4 (START) PG3668S
PL5 (AWAIT) BR3668S
PL3-1 INSERT COIN PL3-1 BR3665S
PL3-2 PROGRAM PL3-2 PG3665S
PL3-3 SELECT DISC No. PL3-3 AY3665S
PL3-4 SELECT TRACK No. PL3-4 AY3665S
D1-1,2 SL1263
D1-2,3 SL1263
D6-1,2 SL1263
D1-1 SL1199
D4-2,3 SL1263
D3 SL1199
D4-1 SL1199
D5-1,2 SL1263
TRACK No.
DISC No.
PROGRAM No.
CREDIT
DP
CNP001
TO MAIN BOARD (CNJ005)
C1001 470 6.3V
CNP004
TO MAIN BOARD (CNJ009)
IC1020 BX1387 REMOTO CONTROL SENSOR
TO MAIN BOARD (CNJ006)
CNP003
C1002 100/6.3V
D1001—1005 1S1555
S1-1 PROGRAM
S1-2 START
S1-3 REPLAY
S1-4 STOP
S1-5 CANCEL
S1-6 AWAIT
S1-7 CHANGE
S1-8 CHECK
S1-9 3
S1-10 6
S1-11 9
S1-12 ENT
S1-13 2
S1-14 5
S1-15 8
S1-16 0
S1-17 1
S1-18 4
S1-19 7
S1-20 BGM
【INDICATOR UNIT】

3-6. INDICATOR UNIT ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description
902	1-464-645-21	INDICATOR UNIT
C1001	1-123-298-00	ELECT 470 μF 20% 6.3V
C1002	1-123-295-00	ELECT 100 μF 20% 6.3V
CNP001	★1-560-062-31	PIN, CONNECTOR 4P
CNP002	★1-560-066-11	PIN, CONNECTOR 10P
CNP003	★1-560-064-11	PIN, CONNECTOR 6P
CNP004	★1-560-061-11	PIN, CONNECTOR 3P
D1-1	9-990-280-01	LED SL1199
D1-2, 3	8-719-938-47	LED SL1263
D2	8-719-938-47	LED SL1263
D3	9-990-280-01	LED SL1199
D4-1	9-990-280-01	LED SL1199
D4-2, 3	8-719-938-47	LED SL1263
D5	8-719-938-47	LED SL1263
D6	8-719-938-47	LED SL1263
D1001	8-719-911-19	DIODE 1SS119
D1002	8-719-911-19	DIODE 1SS119
D1003	8-719-911-19	DIODE 1SS119
D1004	8-719-911-19	DIODE 1SS119
D1005	8-719-911-19	DIODE 1SS119
IC1001	8-759-600-48	IC M50782SP
IC1002	8-759-600-48	IC M50782SP
IC1003	8-759-600-54	IC M50783SP
IC1004	8-759-240-28	IC TC4028BP
IC1005	8-759-645-19	IC M54519P
IC1006	8-759-645-19	IC M54519P
IC1007	8-759-902-47	IC SN74LS247N
IC1008	8-759-902-47	IC SN74LS247N
IC1009	8-759-902-47	IC SN74LS247N
IC1010	8-759-902-47	IC SN74LS247N
IC1011	8-759-902-47	IC SN74LS247N
IC1012	8-759-902-47	IC SN74LS247N
IC1013	8-759-902-47	IC SN74LS247N
IC1014	8-759-902-47	IC SN74LS247N
IC1015	8-759-902-47	IC SN74LS247N
IC1016	8-759-902-47	IC SN74LS247N
IC1017	8-759-902-47	IC SN74LS247N
IC1018	8-759-902-47	IC SN74LS247N
IC1019	8-759-902-47	IC SN74LS247N
IC1020	8-741-138-70	IC BX1387
PL1-1	9-990-281-01	LED PG3665S
PL1-2	9-990-282-01	LED BR3665S
PL1-3	9-990-283-01	LED AY3665S
PL2-1	9-990-281-01	LED PG3665S
PL2-2	9-990-282-01	LED BR3665S
PL2-3	9-990-283-01	LED AY3665S
PL3-1	9-990-282-01	LED BR3665S
PL3-2	9-990-281-01	LED PG3665S
PL3-3	9-990-283-01	LED AY3665S
PL3-4	9-990-283-01	LED AY3665S
PL4	9-990-284-01	LED PG366
PL5	9-990-285-01	LED BR366
R1001	1-246-521-00	CARBON 100K 5% 1/4W
R1002	1-246-521-00	CARBON 100K 5% 1/4W
R1003	1-246-521-00	CARBON 100K 5% 1/4W
R1004	1-246-521-00	CARBON 100K 5% 1/4W
R1005	1-246-521-00	CARBON 100K 5% 1/4W
R1006	1-246-521-00	CARBON 100K 5% 1/4W
R1007	1-246-521-00	CARBON 100K 5% 1/4W
R1008	1-246-521-00	CARBON 100K 5% 1/4W
R1009	1-246-521-00	CARBON 100K 5% 1/4W
R1010	1-246-521-00	CARBON 100K 5% 1/4W
R1011	1-246-461-00	CARBON 330 5% 1/4W
R1012	1-246-461-00	CARBON 330 5% 1/4W
R1013	1-246-461-00	CARBON 330 5% 1/4W
R1014	1-246-461-00	CARBON 330 5% 1/4W
R1015	1-246-461-00	CARBON 330 5% 1/4W
R1016	1-246-461-00	CARBON 330 5% 1/4W
R1017	1-246-461-00	CARBON 330 5% 1/4W
R1018	1-246-461-00	CARBON 330 5% 1/4W
R1019	1-246-461-00	CARBON 330 5% 1/4W
R1020	1-246-461-00	CARBON 330 5% 1/4W
R1021	1-246-461-00	CARBON 330 5% 1/4W
R1022	1-246-461-00	CARBON 330 5% 1/4W
R1023	1-246-461-00	CARBON 330 5% 1/4W
R1024	1-246-461-00	CARBON 330 5% 1/4W
R1025	1-246-461-00	CARBON 330 5% 1/4W
R1026	1-246-461-00	CARBON 330 5% 1/4W
R1027	1-246-461-00	CARBON 330 5% 1/4W
R1028	1-246-461-00	CARBON 330 5% 1/4W
R1029	1-246-461-00	CARBON 330 5% 1/4W
R1030	1-246-461-00	CARBON 330 5% 1/4W
R1031	1-246-461-00	CARBON 330 5% 1/4W
R1032	1-246-461-00	CARBON 330 5% 1/4W
R1033	1-246-461-00	CARBON 330 5% 1/4W
R1034	1-246-461-00	CARBON 330 5% 1/4W
R1035	1-246-461-00	CARBON 330 5% 1/4W
R1036	1-246-461-00	CARBON 330 5% 1/4W

Ref. No.	Part No.	Description			
R1037	1-246-461-00	CARBON	330	5%	1/4W
R1038	1-246-461-00	CARBON	330	5%	1/4W
R1039	1-246-461-00	CARBON	330	5%	1/4W
R1040	1-246-461-00	CARBON	330	5%	1/4W
R1041	1-246-461-00	CARBON	330	5%	1/4W
R1042	1-246-461-00	CARBON	330	5%	1/4W
R1043	1-246-461-00	CARBON	330	5%	1/4W
R1044	1-246-461-00	CARBON	330	5%	1/4W
R1045	1-246-461-00	CARBON	330	5%	1/4W
R1046	1-246-461-00	CARBON	330	5%	1/4W
R1047	1-246-461-00	CARBON	330	5%	1/4W
R1048	1-246-461-00	CARBON	330	5%	1/4W
R1049	1-246-461-00	CARBON	330	5%	1/4W
R1050	1-246-461-00	CARBON	330	5%	1/4W
R1051	1-246-461-00	CARBON	330	5%	1/4W
R1052	1-246-461-00	CARBON	330	5%	1/4W
R1053	1-246-461-00	CARBON	330	5%	1/4W
R1054	1-246-461-00	CARBON	330	5%	1/4W
R1055	1-246-461-00	CARBON	330	5%	1/4W
R1056	1-246-461-00	CARBON	330	5%	1/4W
R1057	1-246-461-00	CARBON	330	5%	1/4W
R1058	1-246-461-00	CARBON	330	5%	1/4W
R1059	1-246-461-00	CARBON	330	5%	1/4W
R1060	1-246-461-00	CARBON	330	5%	1/4W
R1061	1-246-461-00	CARBON	330	5%	1/4W
R1062	1-246-461-00	CARBON	330	5%	1/4W
R1063	1-246-461-00	CARBON	330	5%	1/4W
R1064	1-246-461-00	CARBON	330	5%	1/4W
R1065	1-246-461-00	CARBON	330	5%	1/4W
R1066	1-246-461-00	CARBON	330	5%	1/4W
R1067	1-246-461-00	CARBON	330	5%	1/4W
R1068	1-246-461-00	CARBON	330	5%	1/4W
R1069	1-246-461-00	CARBON	330	5%	1/4W
R1070	1-246-461-00	CARBON	330	5%	1/4W
R1071	1-246-461-00	CARBON	330	5%	1/4W
R1072	1-246-461-00	CARBON	330	5%	1/4W
R1073	1-246-461-00	CARBON	330	5%	1/4W
R1074	1-246-461-00	CARBON	330	5%	1/4W
R1075	1-246-461-00	CARBON	330	5%	1/4W
R1076	1-246-461-00	CARBON	330	5%	1/4W
R1077	1-246-461-00	CARBON	330	5%	1/4W
R1078	1-246-461-00	CARBON	330	5%	1/4W
R1079	1-246-461-00	CARBON	330	5%	1/4W
R1080	1-246-461-00	CARBON	330	5%	1/4W
R1081	1-246-461-00	CARBON	330	5%	1/4W
R1082	1-246-461-00	CARBON	330	5%	1/4W
R1083	1-246-461-00	CARBON	330	5%	1/4W
R1084	1-246-461-00	CARBON	330	5%	1/4W
R1085	1-246-461-00	CARBON	330	5%	1/4W
R1086	1-246-461-00	CARBON	330	5%	1/4W
R1087	1-246-461-00	CARBON	330	5%	1/4W
R1088	1-246-461-00	CARBON	330	5%	1/4W
R1089	1-246-445-00	CARBON	68	5%	1/4W
R1090	1-246-465-00	CARBON	470	5%	1/4W
R1091	1-246-447-00	CARBON	82	5%	1/4W
R1092	1-246-445-00	CARBON	68	5%	1/4W
R1093	1-246-465-00	CARBON	470	5%	1/4W
R1094	1-246-447-00	CARBON	82	5%	1/4W
R1095	1-246-461-00	CARBON	330	5%	1/4W
R1096	1-246-461-00	CARBON	330	5%	1/4W
R1097	1-246-461-00	CARBON	330	5%	1/4W
R1098	1-246-445-00	CARBON	68	5%	1/4W
R1099	1-246-445-00	CARBON	68	5%	1/4W

Ref. No.	Part No.	Description			
R1100	1-246-447-00	CARBON	82	5%	1/4W
R1101	1-246-447-00	CARBON	82	5%	1/4W
R1102	1-246-447-00	CARBON	82	5%	1/4W
R1103	1-246-447-00	CARBON	82	5%	1/4W
R1104	1-246-447-00	CARBON	82	5%	1/4W
R1105	1-246-447-00	CARBON	82	5%	1/4W
R1106	1-246-447-00	CARBON	82	5%	1/4W
R1107	1-246-461-00	CARBON	330	5%	1/4W
R1108	1-246-461-00	CARBON	330	5%	1/4W
R1109	1-246-461-00	CARBON	330	5%	1/4W
R1110	1-246-461-00	CARBON	330	5%	1/4W
R1111	1-246-461-00	CARBON	330	5%	1/4W
R1112	1-246-461-00	CARBON	330	5%	1/4W
R1113	1-246-461-00	CARBON	330	5%	1/4W
R1114	1-246-461-00	CARBON	330	5%	1/4W
R1115	1-246-461-00	CARBON	330	5%	1/4W
R1116	1-246-461-00	CARBON	330	5%	1/4W
R1117	1-246-461-00	CARBON	330	5%	1/4W
R1118	1-246-461-00	CARBON	330	5%	1/4W
R1119	1-246-461-00	CARBON	330	5%	1/4W
R1120	1-246-461-00	CARBON	330	5%	1/4W
R1121	1-246-461-00	CARBON	330	5%	1/4W
R1122	1-246-449-00	CARBON	100	5%	1/4W
R1123	1-246-445-00	CARBON	68	5%	1/4W
R1124	1-246-465-00	CARBON	470	5%	1/4W
R1125	1-246-447-00	CARBON	82	5%	1/4W
R1126	1-246-445-00	CARBON	68	5%	1/4W
R1127	1-246-465-00	CARBON	470	5%	1/4W
R1128	1-246-447-00	CARBON	82	5%	1/4W
R1129	1-246-445-00	CARBON	68	5%	1/4W
R1130	1-246-465-00	CARBON	470	5%	1/4W
R1131	1-246-447-00	CARBON	82	5%	1/4W
R1132	1-246-445-00	CARBON	68	5%	1/4W
R1133	1-246-465-00	CARBON	470	5%	1/4W
R1134	1-246-447-00	CARBON	82	5%	1/4W
R1135	1-246-461-00	CARBON	330	5%	1/4W
R1136	1-246-461-00	CARBON	330	5%	1/4W
R1137	1-246-445-00	CARBON	68	5%	1/4W
R1138	1-246-447-00	CARBON	82	5%	1/4W
R1139	1-246-447-00	CARBON	82	5%	1/4W
R1140	1-246-447-00	CARBON	82	5%	1/4W

S1-1	1-553-856-21	SWITCH, KEY BOARD (PROGRAM)
S1-2	1-553-856-21	SWITCH, KEY BOARD (START)
S1-3	1-553-856-21	SWITCH, KEY BOARD (REPLAY)
S1-4	1-553-856-21	SWITCH, KEY BOARD (STOP)
S1-5	1-553-856-21	SWITCH, KEY BOARD (CANCEL)
S1-6	1-553-856-21	SWITCH, KEY BOARD (AWAIT)
S1-7	1-553-856-21	SWITCH, KEY BOARD (CHANGE)
S1-8	1-553-856-21	SWITCH, KEY BOARD (CHECK)
S1-9	1-553-856-21	SWITCH, KEY BOARD (3)
S1-10	1-553-856-21	SWITCH, KEY BOARD (6)
S1-11	1-553-856-21	SWITCH, KEY BOARD (9)
S1-12	1-553-856-21	SWITCH, KEY BOARD (SET)
S1-13	1-553-856-21	SWITCH, KEY BOARD (2)
S1-14	1-553-856-21	SWITCH, KEY BOARD (5)
S1-15	1-553-856-21	SWITCH, KEY BOARD (8)
S1-16	1-553-856-21	SWITCH, KEY BOARD (0)
S1-17	1-553-856-21	SWITCH, KEY BOARD (1)
S1-18	1-553-856-21	SWITCH, KEY BOARD (4)
S1-19	1-553-856-21	SWITCH, KEY BOARD (7)
S1-20	1-553-856-21	SWITCH, KEY BOARD (BGM)

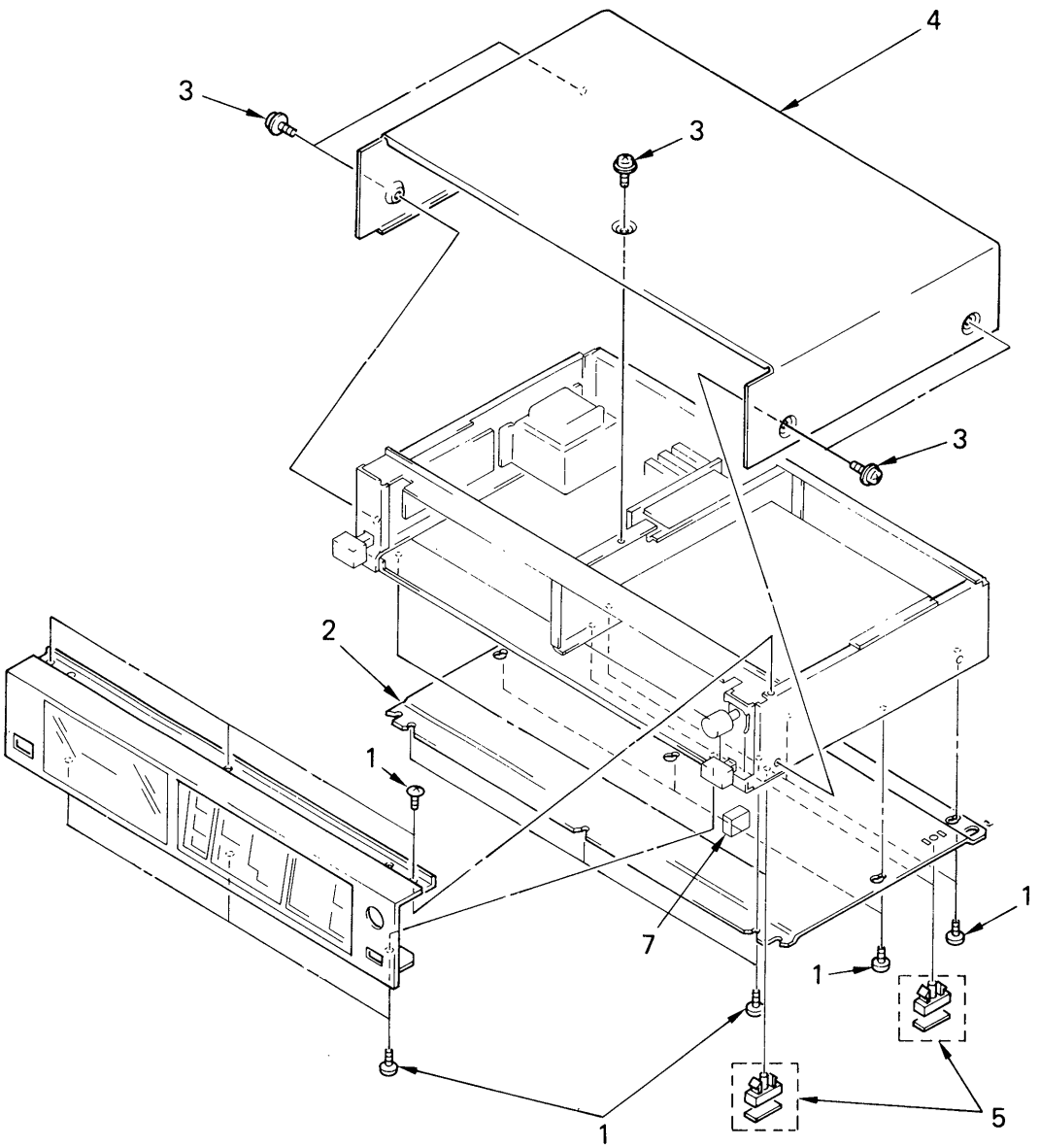
SECTION 4
EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
  Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ ↑
  Cabinet's Color Parts Color

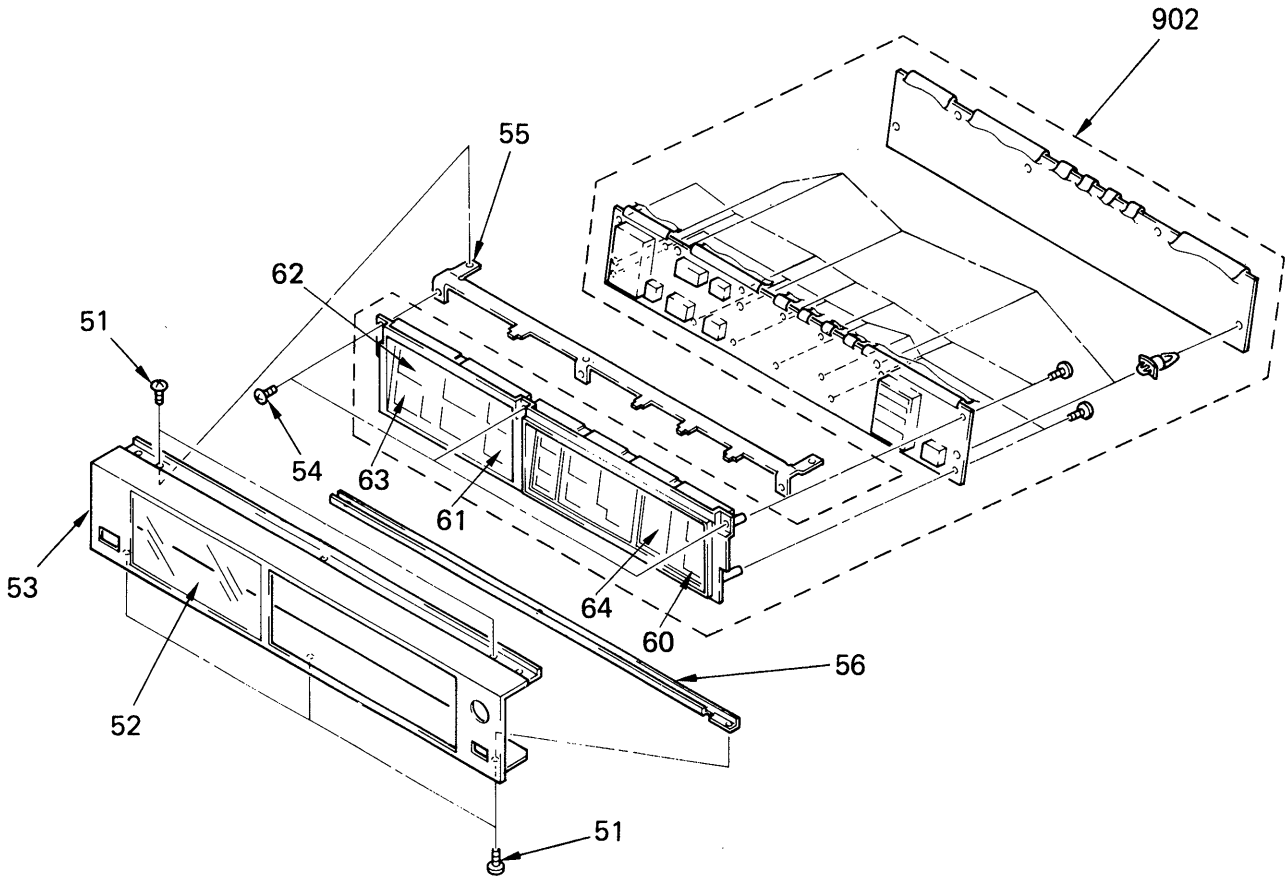
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

(1)



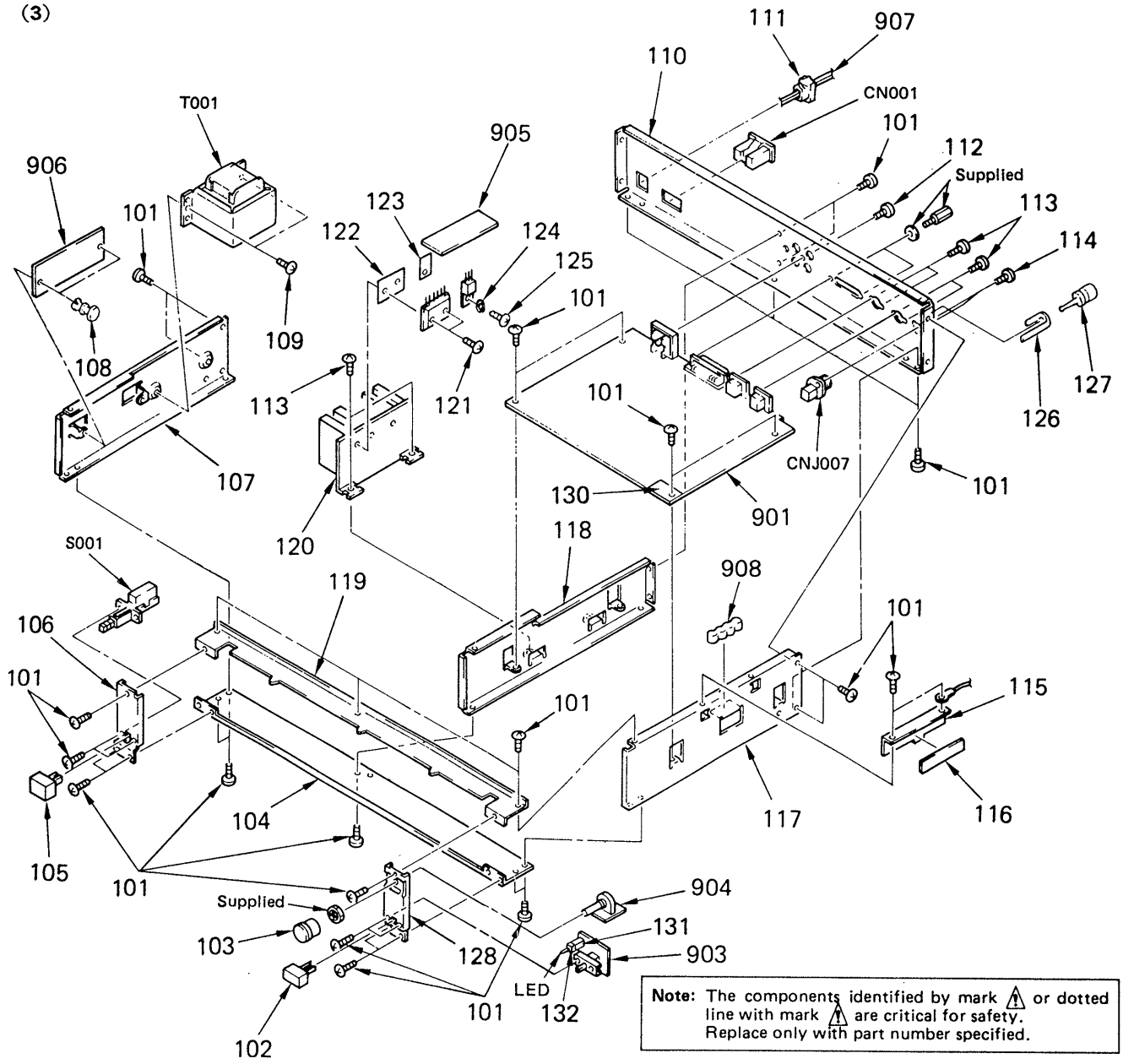
No.	Part No.	Description	Remarks
1	7-682-547-04	SCREW +BVTT 3X6 (S)	
2	*4-915-876-01	BOARD, BOTTOM	
3	4-820-330-31	SCREW	
4	4-915-877-11	CASE	
5	X-4886-405-2	FOOT ASSY	
7	*4-915-886-01	CUSHION	

(2)



No.	Part No.	Description	Remarks
51	7-682-547-09	SCREW +BVTT 3X6 (S)	
52	4-915-863-01	WINDOW, INDICATION	
53	4-915-874-31	PANEL, FRONT	
54	7-682-548-04	SCREW +BVTT 3X8 (S)	
55	*4-915-873-01	BRACKET (A), ESCUTCHEON	
56	*4-915-868-01	BRACKET (B), ESCUTCHEON	
60	9-995-198-01	PLATE, INDICATION (1) (START/REPLAY/STOP)	
61	*9-995-199-01	PLATE, INDICATION (2) (DISC NO./TRACK NO.)	
62	*9-995-200-01	SHEET, INDICATION (1) (PLAY/READY/SEARCH)	
63	*9-995-201-01	SHEET, INDICATION (2) (NEXT/PROGRAM/CHECK)	
64	*9-995-202-01	SHEET, INDICATION (3) (INSERT/PROG/SEL/SEL)	
902	1-464-645-21	INDICATOR UNIT	

(3)



Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

No.	Part No.	Description	Remarks
101	7-682-547-04	SCREW +BVTT 3X6 (S)	
102	4-879-487-31	PUSH BUTTON (PLAY MODE)	
103	X-4915-806-1	KNOB (DIA.17) (GRAY) ASSY, R	
104	*4-915-866-01	REINFORCEMENT, LOWER BLCOK	
105	4-887-548-11	KNOB (17X19), SQUARE (POWER)	
106	*4-915-861-01	BRACKET, SW	
107	*4-915-872-01	PLATE, SIDE, LEFT	
108	4-818-403-00	RIVET, NYLON	
109	7-682-560-04	SCREW +BVTT 4X6 (S)	
110	*4-915-875-41	PLATE, JACK	
111	*3-703-244-00	BUSHING (2104), CORD	
112	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
113	7-682-548-04	SCREW +BVTT 3X8 (S)	
114	7-621-770-XX	SCREW +BVTT 2.6X8 (S)	
115	*4-915-865-01	HOLDER, BATTERY	
116	3-699-028-01	CUSHION, BATT	
117	*4-915-871-01	PLATE, SIDE, RIGHT	
118	*4-915-870-01	PLATE, RELAY	
119	*4-915-867-01	REINFORCEMENT, UPPER BLCOK	
120	*4-915-869-01	HEAT SINK	
121	7-685-649-79	SCREW +BVTP 3X14 TYPE2 SLIT	
122	*3-673-624-01	SHEET, INSILATING, TR	
123	3-703-037-00	INSULATOR, TO-220	
124	2-371-561-00	BUSHING (P), INSULATING	
125	7-685-647-79	SCREW +BVTP 3X10 TYPE2 SLIT	
126	3-701-993-00	SPACER, TERMINAL	
127	3-706-165-00	SCREW	
128	*4-915-862-01	BRACKET, VOL	
130	4-870-539-00	PLATE, GROUND	
131	*3-317-119-00	HOLDER (B), LED	
132	*4-882-041-00	RETAINER, LED	
901	*A-4651-090-A	MOUNTED PCB, MAIN	
903	*A-4644-303-A	MOUNTED PCB, SW-1	
904	*A-4644-304-A	MOUNTED PCB, SW-2	
905	*A-4646-297-A	MOUNTED PCB, PW-2	
906	*1-641-603-11	PW-1 BOARD	
907	⚠ 1-556-562-00	CORD, POWER	
908	1-528-196-11	BATTERY,STORAGE,NICKEL CADMIUM	
CN001	⚠ 1-526-751-00	OUTLET, AC (OUTLET)	
CNJ007	*1-558-643-11	CORD, CONNECTION TOP (COIN)	
S001	⚠ 1-554-920-11	SWITCH, PUSH (AC POWER)(1 KEY)	
T001	⚠ 1-450-728-11	TRANSFORMER, POWER	

SECTION 5
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref.No.	Part No.	Description			
901	*A-4651-090-A	MOUNTED PCB, MAIN			
902	1-464-645-21	INDICATOR UNIT			
903	*A-4644-303-A	MOUNTED PCB, SW-1			
904	*A-4644-304-A	MOUNTED PCB, SW-2			
905	*A-4646-297-A	MOUNTED PCB, PW-2			
906	*1-641-603-11	PW-1 BOARD			
907 ⚠	1-556-562-00	CORD, POWER			
908	1-528-196-11	BATTERY,STORAGE,NICKEL CADMIUM			
909	*1-535-118-00	TERMINAL 5P			
910	*1-535-139-00	BASE POST 19MM (10MM PITCH) 2P			
C101 ⚠	1-161-744-00	CERAMIC	0.01MF		400V
C102 ⚠	1-161-743-00	CERAMIC	0.0047MF		400V
C103 ⚠	1-161-742-00	CERAMIC	0.0022MF	20%	400V
C104 ⚠	1-161-742-00	CERAMIC	0.0022MF	20%	400V
C107	1-124-564-11	ELECT	4700MF	20%	25V
C108	1-124-564-11	ELECT	4700MF	20%	25V
C109	1-136-171-00	FILM	0.33MF	5%	50V
C110	1-124-472-11	ELECT	470MF	20%	6.3V
C111	1-136-165-00	FILM	0.1MF	5%	50V
C112	1-124-443-00	ELECT	100MF	20%	10V
C113	1-136-165-00	FILM	0.1MF	5%	50V
C114	1-126-101-11	ELECT	100MF	20%	16V
C115	1-124-477-11	ELECT	47MF	20%	16V
C116	1-123-392-00	ELECT	1000MF	20%	6.3V
C117	1-126-233-11	ELECT	22MF	20%	25V
C118	1-123-875-11	ELECT	10MF	20%	50V
C119	1-136-165-00	FILM	0.1MF	5%	50V
C120	1-136-165-00	FILM	0.1MF	5%	50V
C121	1-124-480-11	ELECT	470MF	20%	25V
C122	1-124-480-11	ELECT	470MF	20%	25V
C123	1-124-120-11	ELECT	220MF	20%	16V
C124	1-124-120-11	ELECT	220MF	20%	16V
C125	1-136-165-00	FILM	0.1MF	5%	50V
C126	1-136-165-00	FILM	0.1MF	5%	50V
C127	1-123-875-11	ELECT	10MF	20%	50V
C128	1-162-294-31	CERAMIC	0.001MF	10%	50V
C129	1-162-294-31	CERAMIC	0.001MF	10%	50V
C130	1-162-294-31	CERAMIC	0.001MF	10%	50V
C133	1-162-294-31	CERAMIC	0.001MF	10%	50V
C134	1-162-294-31	CERAMIC	0.001MF	10%	50V
C135	1-162-294-31	CERAMIC	0.001MF	10%	50V
C136	1-162-294-31	CERAMIC	0.001MF	10%	50V
C137	1-161-494-00	CERAMIC	0.022MF	30%	25V
C138	1-161-494-00	CERAMIC	0.022MF	30%	25V
C140	1-124-963-11	ELECT	33MF	20%	16V
C141	1-162-210-31	CERAMIC	30PF	5%	50V

Ref.No.	Part No.	Description			
C142	1-162-210-31	CERAMIC	30PF	5%	50V
C143	1-123-875-11	ELECT	10MF	20%	50V
C144	1-123-875-11	ELECT	10MF	20%	50V
C145	1-123-875-11	ELECT	10MF	20%	50V
C146	1-162-282-31	CERAMIC	100PF	10%	50V
C147	1-162-282-31	CERAMIC	100PF	10%	50V
C152	1-124-657-00	ELECT	10MF	20%	50V
C153	1-162-282-31	CERAMIC	100PF	10%	50V
C154	1-124-657-00	ELECT	10MF	20%	50V
C155	1-126-233-11	ELECT	22MF	20%	25V
C156	1-126-233-11	ELECT	22MF	20%	25V
C160	1-124-484-11	ELECT	220MF	20%	35V
C161	1-124-482-11	ELECT	33MF	20%	35V
C170	1-124-563-11	ELECT	2200MF	20%	25V
C171	1-124-478-11	ELECT	100MF	20%	25V
C172	1-123-381-00	ELECT	2.2MF	20%	50V
C175	1-161-494-00	CERAMIC	0.022MF		25V
C176	1-161-494-00	CERAMIC	0.022MF		25V
C177	1-161-494-00	CERAMIC	0.022MF		25V
C178	1-161-494-00	CERAMIC	0.022MF		25V
C243	1-123-875-11	ELECT	10MF	20%	50V
C244	1-123-875-11	ELECT	10MF	20%	50V
C245	1-123-875-11	ELECT	10MF	20%	50V
C246	1-162-282-31	CERAMIC	100PF	10%	50V
C247	1-162-282-31	CERAMIC	100PF	10%	50V
C252	1-124-657-00	ELECT	10MF	20%	50V
C253	1-162-282-31	CERAMIC	100PF	10%	50V
C254	1-124-657-00	ELECT	10MF	20%	50V
C901 ⚠	1-161-742-00	CERAMIC	0.0022MF	20%	400V
C902 ⚠	1-161-742-00	CERAMIC	0.0022MF	20%	400V
CB001 ⚠	1-532-538-00	BREAKER, CIRCUIT (0.8A)			
CN001 ⚠	1-526-882-00	OUTLET, AC (OUTLET)			
CNJ001	1-563-328-11	CONNECTOR, DIN 6P (PITCH CONTROL)			
CNJ002	1-563-327-11	CONNECTOR, DIN 4P (REMOCON RECIEVER)			
CNJ003	1-563-562-11	JACK, PIN 4P (EXT INPUT,EXT OUTPUT)			
CNJ004	1-565-316-11	SOCKET, CONNECTOR 25P (DISC LOADER)			
CNJ007	*1-558-643-11	CORD, CONNECTION 10P (COIN)			
CNP007	*1-560-066-00	PIN, CONNECTOR 10P			
CNP016	*1-560-062-00	PIN, CONNECTOR 4P			
CNP017	*1-560-062-00	PIN, CONNECTOR 4P			
CNP018	*1-560-060-00	PIN, CONNECTOR 2P			
CNP020	*1-560-060-00	PIN, CONNECTOR 2P			
D101	8-719-500-09	DIODE D5FB20F			
D102	8-719-200-02	DIODE 10E2			
D103	8-719-200-02	DIODE 10E2			
D104	8-719-200-02	DIODE 10E2			
D105	8-719-200-02	DIODE 10E2			
D106	8-719-000-48	DIODE MC911			

Ref.No.	Part No.	Description
D107	8-719-107-94	DIODE 1SS202-1
D108	8-719-107-94	DIODE 1SS202-1
D109	8-719-101-89	DIODE RD5.6EL2
D110	8-719-000-12	DIODE MC931
D111	8-719-107-94	DIODE 1SS202-1
D112	8-719-107-94	DIODE 1SS202-1
D113	8-719-107-94	DIODE 1SS202-1
D114	8-719-107-94	DIODE 1SS202-1
D139	8-719-933-60	DIODE HZS9C2L
D140	8-719-933-60	DIODE HZS9C2L
D141	8-719-933-60	DIODE HZS9C2L
D142	8-719-933-60	DIODE HZS9C2L
D143	8-719-933-60	DIODE HZS9C2L
D144	8-719-933-60	DIODE HZS9C2L
D145	8-719-933-60	DIODE HZS9C2L
D146	8-719-933-60	DIODE HZS9C2L
D147	8-719-933-60	DIODE HZS9C2L
D148	8-719-933-60	DIODE HZS9C2L
D150	8-719-812-41	LED TLR124
D170	8-719-200-02	DIODE 10E2
IC100	8-749-990-05	IC STR9005
IC101	8-759-604-34	IC M5F78M05
IC103	8-759-982-48	IC RC79L12A
IC104	8-759-982-26	IC RC78L12A
IC105	8-719-159-89	IC PS2501-2
IC106	8-719-157-83	IC PS2501-4
IC107	8-719-157-83	IC PS2501-4
IC108	8-719-157-83	IC PS2501-4
IC109	8-759-202-11	IC TC74HC00P
IC110	8-759-202-13	IC TC74HCU04P
IC111	8-759-202-33	IC TC74HC240P
IC112	8-759-645-16	IC M54516P
IC113	8-759-981-98	IC RC4560DD
IC114	8-759-981-98	IC RC4560DD
IC115	8-757-700-00	IC CX-770
IC116	8-759-981-98	IC RC4560DD
IC117	8-759-981-98	IC RC4560DD
IC118	8-719-157-83	IC PS2501-4
IC120	8-759-924-77	IC MB88515B-140M
L001	⚠ 1-421-960-11	TRANSFORMER, LINE FILTER
Q101	8-729-178-54	TRANSISTOR 2SC2785
Q102	8-729-178-54	TRANSISTOR 2SC2785
Q103	8-729-178-54	TRANSISTOR 2SC2785
Q104	8-729-900-63	TRANSISTOR DTA124ES
Q105	8-729-900-63	TRANSISTOR DTA124ES
Q106	8-729-900-63	TRANSISTOR DTA124ES
Q107	8-729-900-63	TRANSISTOR DTA124ES
Q108	8-729-900-36	TRANSISTOR DTC124ES
Q109	8-729-900-36	TRANSISTOR DTC124ES
Q110	8-729-173-38	TRANSISTOR 2SA733
Q111	8-729-900-36	TRANSISTOR DTC124ES
Q112	8-729-178-54	TRANSISTOR 2SC2785
Q114	8-729-900-36	TRANSISTOR DTC124ES
Q115	8-729-900-36	TRANSISTOR DTC124ES
Q116	8-729-900-63	TRANSISTOR DTA124ES
Q117	8-729-900-36	TRANSISTOR DTC124ES
Q118	8-729-900-63	TRANSISTOR DTA124ES
Q119	8-729-900-63	TRANSISTOR DTA124ES

Ref.No.	Part No.	Description			
Q120	8-729-201-04	TRANSISTOR 2SC2878			
Q121	8-729-201-04	TRANSISTOR 2SC2878			
Q123	8-729-900-36	TRANSISTOR DTC124ES			
Q124	8-729-900-63	TRANSISTOR DTA124ES			
Q220	8-729-201-04	TRANSISTOR 2SC2878			
Q221	8-729-201-04	TRANSISTOR 2SC2878			
R101	1-249-417-11	CARBON	1K	5%	1/4W
R102	1-249-417-11	CARBON	1K	5%	1/4W
R103	1-249-423-11	CARBON	3.3K	5%	1/4W
R104	1-247-850-11	CARBON	6.2K	5%	1/4W
R105	1-249-429-11	CARBON	10K	5%	1/4W
R106	1-249-429-11	CARBON	10K	5%	1/4W
R107	1-249-420-11	CARBON	1.8K	5%	1/4W
R108	1-249-420-11	CARBON	1.8K	5%	1/4W
R109	1-249-421-11	CARBON	2.2K	5%	1/4W
R110	1-247-745-11	CARBON	330	5%	1/2W
R111	1-249-429-11	CARBON	10K	5%	1/4W
R112	1-249-417-11	CARBON	1K	5%	1/4W
R113	1-249-433-11	CARBON	22K	5%	1/4W
R114	1-247-903-00	CARBON	1M	5%	1/4W
R120	1-247-893-11	CARBON	390K	5%	1/4W
R121	1-249-441-11	CARBON	100K	5%	1/4W
R122	1-249-441-11	CARBON	100K	5%	1/4W
R123	1-249-417-11	CARBON	1K	5%	1/4W
R124	1-249-417-11	CARBON	1K	5%	1/4W
R125	1-249-441-11	CARBON	100K	5%	1/4W
R126	1-249-441-11	CARBON	100K	5%	1/4W
R127	1-249-441-11	CARBON	100K	5%	1/4W
R128	1-249-441-11	CARBON	100K	5%	1/4W
R129	1-249-441-11	CARBON	100K	5%	1/4W
R130	1-249-441-11	CARBON	100K	5%	1/4W
R131	1-249-433-11	CARBON	22K	5%	1/4W
R132	1-249-433-11	CARBON	22K	5%	1/4W
R133	1-249-433-11	CARBON	22K	5%	1/4W
R134	1-249-433-11	CARBON	22K	5%	1/4W
R135	1-249-433-11	CARBON	22K	5%	1/4W
R136	1-249-433-11	CARBON	22K	5%	1/4W
R137	1-249-433-11	CARBON	22K	5%	1/4W
R138	1-249-433-11	CARBON	22K	5%	1/4W
R140	1-249-433-11	CARBON	22K	5%	1/4W
R141	1-249-433-11	CARBON	22K	5%	1/4W
R142	1-249-429-11	CARBON	10K	5%	1/4W
R143	1-249-435-11	CARBON	33K	5%	1/4W
R146	1-249-432-11	CARBON	18K	5%	1/4W
R147	1-249-433-11	CARBON	22K	5%	1/4W
R148	1-249-433-11	CARBON	22K	5%	1/4W
R149	1-249-433-11	CARBON	22K	5%	1/4W
R150	1-249-433-11	CARBON	22K	5%	1/4W
R151	1-249-433-11	CARBON	22K	5%	1/4W
R152	1-249-433-11	CARBON	22K	5%	1/4W
R153	1-249-433-11	CARBON	22K	5%	1/4W
R160	1-249-429-11	CARBON	10K	5%	1/4W
R161	1-249-429-11	CARBON	10K	5%	1/4W
R162	1-249-417-11	CARBON	1K	5%	1/4W
R163	1-249-429-11	CARBON	10K	5%	1/4W
R164	1-247-887-00	CARBON	220K	5%	1/4W
R165	1-247-887-00	CARBON	220K	5%	1/4W

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref.No.	Part No.	Description			
R166	1-247-903-00	CARBON	1M	5%	1/4W
R167	1-249-429-11	CARBON	10K	5%	1/4W
R168	1-249-429-11	CARBON	10K	5%	1/4W
R169	1-249-437-11	CARBON	47K	5%	1/4W
R170	1-249-421-11	CARBON	2.2K	5%	1/4W
R171	1-249-429-11	CARBON	10K	5%	1/4W
R172	1-249-437-11	CARBON	47K	5%	1/4W
R173	1-247-887-00	CARBON	220K	5%	1/4W
R174	1-249-437-11	CARBON	47K	5%	1/4W
R175	1-249-424-11	CARBON	3.9K	5%	1/4W
R176	1-249-435-11	CARBON	33K	5%	1/4W
R177	1-249-419-11	CARBON	1.5K	5%	1/4W
R178	1-249-405-11	CARBON	100	5%	1/4W
R179	1-249-429-11	CARBON	10K	5%	1/4W
R180	1-249-437-11	CARBON	47K	5%	1/4W
R181	1-249-437-11	CARBON	47K	5%	1/4W
R182	1-249-437-11	CARBON	47K	5%	1/4W
R185	1-249-429-11	CARBON	10K	5%	1/4W
R188	1-249-417-11	CARBON	1K	5%	1/4W
R189	1-249-417-11	CARBON	1K	5%	1/4W
R190	1-249-417-11	CARBON	1K	5%	1/4W
R260	1-249-429-11	CARBON	10K	5%	1/4W
R261	1-249-429-11	CARBON	10K	5%	1/4W
R262	1-249-417-11	CARBON	1K	5%	1/4W
R263	1-249-429-11	CARBON	10K	5%	1/4W
R264	1-247-887-00	CARBON	220K	5%	1/4W
R265	1-247-887-00	CARBON	220K	5%	1/4W
R266	1-247-903-00	CARBON	1M	5%	1/4W
R267	1-249-429-11	CARBON	10K	5%	1/4W
R268	1-249-429-11	CARBON	10K	5%	1/4W
R269	1-249-437-11	CARBON	47K	5%	1/4W
R270	1-249-421-11	CARBON	2.2K	5%	1/4W
R271	1-249-429-11	CARBON	10K	5%	1/4W
R273	1-247-887-00	CARBON	220K	5%	1/4W
R274	1-249-437-11	CARBON	47K	5%	1/4W
R275	1-249-424-11	CARBON	3.9K	5%	1/4W
R276	1-249-435-11	CARBON	33K	5%	1/4W
R277	1-249-419-11	CARBON	1.5K	5%	1/4W
R278	1-249-405-11	CARBON	100	5%	1/4W
R279	1-249-429-11	CARBON	10K	5%	1/4W
R302	1-249-425-11	CARBON	4.7K	5%	1/4W
R303	1-249-425-11	CARBON	4.7K	5%	1/4W
R304	1-249-415-11	CARBON	680	5%	1/4W
R305	1-249-415-11	CARBON	680	5%	1/4W
R308	1-249-425-11	CARBON	4.7K	5%	1/4W
R309	1-249-425-11	CARBON	4.7K	5%	1/4W
R310	1-249-425-11	CARBON	4.7K	5%	1/4W
R311	1-249-425-11	CARBON	4.7K	5%	1/4W
R312	1-249-415-11	CARBON	680	5%	1/4W
R313	1-249-415-11	CARBON	680	5%	1/4W
R314	1-249-415-11	CARBON	680	5%	1/4W
R315	1-249-415-11	CARBON	680	5%	1/4W
R316	1-249-425-11	CARBON	4.7K	5%	1/4W
R317	1-249-425-11	CARBON	4.7K	5%	1/4W
R318	1-249-425-11	CARBON	4.7K	5%	1/4W
R319	1-249-425-11	CARBON	4.7K	5%	1/4W
R320	1-249-415-11	CARBON	680	5%	1/4W

Ref.No.	Part No.	Description			
R321	1-249-415-11	CARBON	680	5%	1/4W
R322	1-249-415-11	CARBON	680	5%	1/4W
R323	1-249-415-11	CARBON	680	5%	1/4W
R324	1-249-425-11	CARBON	4.7K	5%	1/4W
R325	1-249-425-11	CARBON	4.7K	5%	1/4W
R326	1-249-425-11	CARBON	4.7K	5%	1/4W
R327	1-249-425-11	CARBON	4.7K	5%	1/4W
R328	1-249-415-11	CARBON	680	5%	1/4W
R329	1-249-415-11	CARBON	680	5%	1/4W
R330	1-249-415-11	CARBON	680	5%	1/4W
R331	1-249-415-11	CARBON	680	5%	1/4W
R332	1-249-411-11	CARBON	330	5%	1/4W
R350	1-249-405-11	CARBON	100	5%	1/4W
R351	1-249-433-11	CARBON	22K	5%	1/4W
R352	1-247-745-11	CARBON	330	5%	1/2W
R353	1-249-433-11	CARBON	22K	5%	1/4W
R354	1-249-433-11	CARBON	22K	5%	1/4W
R355	1-249-411-11	CARBON	330	5%	1/4W
R356	1-249-411-11	CARBON	330	5%	1/4W
R357	1-249-411-11	CARBON	330	5%	1/4W
R370	1-249-409-11	CARBON	220	5%	1/4W
R371	1-249-409-11	CARBON	220	5%	1/4W

RV101 RV102	1-237-291-11	RES, VAR, CARBON 5K/5K (BGM VOLUME)
RY101	1-515-622-11	RELAY
S001	⚠ 1-554-920-11	SWITCH, PUSH (AC POWER)(1 KEY)
S002	1-570-676-11	SWITCH, DIGITAL (SPEED CONTROL)
S003	1-554-763-11	SWITCH, PUSH (1 KEY)(PLAY MODE)
T001	⚠ 1-450-728-11	TRANSFORMER, POWER
X001	1-567-143-00	VIBRATOR, CERAMIC (6MHz)

ACCESSORY & PACKING MATERIAL

1-463-525-21	CONTROL UNIT, REMOTE (RM-7000)
1-463-527-21	CONTROL UNIT, REMOTE (RM-7001)
1-506-809-11	PLUG, SHORT
1-558-271-11	CORD, CONNECTION (PHONO PLUG)
1-558-760-11	CORD (WITH TERMINAL)(GROUND)
3-701-630-00	BAG, POLYETHYLENE (MANUAL)
3-765-498-41	MANUAL, INSTRUCTION
*4-915-850-01	CUSHION (RIGHT), UPPER
*4-915-851-01	CUSHION (LEFT), UPPER
*4-915-852-01	CUSHION (RIGHT), LOWER
*4-915-853-01	CUSHION (LEFT), LOWER
*4-917-117-11	INDIVIDUAL CARTON

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

9-952-296-11

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